AGPRO
COMPLETE LAND & RESOURCE SOLUTIONS

February 5, 2007

Mr. Wes Carr
Colorado Department of Public Health & Environment
Water Quality Control Division, Biosolids Management Program
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

RE: Stromo, LLC Composting Facility Letter of Intent for the Distribution of Biosolids

Dear Mr. Carr,

Enclosed please find a *"Letter of Intent for the Use and Distribution of Biosolids for Unrestricted Use"* and accompanying attachments for the Stromo, LLC Compost Facility located at 21970 WCR 30, Hudson, Colorado 80642.

AGPROfessionals, LLC is representing Mr. Tim Smith and Stromo, LLC in this application. Mr. Smith has been approached by the Denver Metro Wastewater Reclamation District to accept biosolids from their facility for composting at the Stromo site. We have been assisted in this process by Mr. Paul Ferguson and Ms. Becky Patterson of the Denver Metro District to develop an alternative for their composting and land application; especially in light of the recent series of snowstorms that have limited Denver Metro's options for treatment and disposal.

Since Stromo, LLC has not received biosolids and will only be accepting biosolids from Denver Metro pending the Division's and Weld County's approval, we have relied upon records and analysis supplied from Denver Metro to complete the letter of intent. A copy of their summary is attached in addition to a revised Stromo, LLC Design and Operations Plan.

Upon your review, please contact me if you have any questions regarding this request.

Sincerely,

Thomas Haren

Attachments:

Letter of Intent for the Use and Distribution of Biosolids for Unrestricted Use
Copy of the Certificate of Designation
Driving Directions
Metro Wastewater Reclamation District Analysis Summary
Amended Design and Operations Plan – Under separate cover

Cc: Troy Swain, Weld County Department of Public Health and Environment
Tim Smith, Stromo LLC Composting Facility

ENGINEERING, SURVEYING, PLANNING & CONSULTING
4350 Highway 66 □ Longmont, CO 80504
970.535.9318 / office □ 303.485.7838 / metro □ 970.535.9854 / fax □ www.agpros.com

CDPHE BMP #_____
EPA REGION 8 GENRAL PERMIT #_____
FACILITY NPDES PERMIT #_____
CD #_____

LETTER OF INTENT
FOR THE USE AND DISTRIBUTION OF BIOSOLIDS
FOR UNRESTRICTED USE (LAWN AND HOME GARDEN)

Regulation No. 64 Section 64.10(A)(1)

Colorado Department of Public Health and Environment
Water Quality Control Division
Biosolids Management Program
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

DATE RECEIVED_____
LOIN DATE_____
COMP/AIR DATE_____
REC'D AIR/COMP DATE_____
NOA DATE_____

DO NOT WRITE ABOVE THIS LINE

GENERAL INFORMATION

Facility Name STROMA, LLC COMPOST FACILITY
Legal Contact TIM SMITH
Street 21970 WCR 30
City HUDSON State CO ZIP 80642
Phone (303) 857-0763 Fax (303) 857-9409

E-Mail tsmith@renewablefiber.com

SITE INFORMATION

Certificate of Designation Number: ☐N/A SEE ATTACHMENT A

Site Location (Section, Township, Range) SW 1/4, S26, T3N, R65W

Center of Site GPS Reading 40° 11' 38.69"N
104° 38' 21.72"W

County WELD

Closest Major Intersection DRIVING DIRECTIONS ATTATCHED
(Attach driving directions to the site from this location)

Revised 5/14/04 WC

LETTER OF INTENT

BIOSOLIDS ANALYSES AND REPORTING UNITS					
PARAMETER	**UNITS**	**VALUE**	**PARAMETER**	**UNITS**	**VALUE**
total solids	percent	23.3	total arsenic	mg/kg dry weight	2.0
pH	standard units	8.4	total cadmium	mg/kg dry weight	3
total phosphorus	percent dry weight	2.47	total copper	mg/kg dry weight	676
total potassium	percent dry weight	0.22	total lead	mg/kg dry weight	54
volatile solids	percent of total solids	64.1	total mercury	mg/kg dry weight	1.5
organic nitrogen as N	percent dry weight	5.56	total molybdenum	mg/kg dry weight	39
total ammonia as N	percent dry weight	0.62	total nickel	mg/kg dry weight	18
nitrate as N	percent dry weight	0.00	total selenium	mg/kg dry weight	15.7
Laboratory:			total zinc	mg/kg dry weight	776
Date Sampled (if individual sample) 09/01/06					
Dates of Samples if averaged (must be in same calendar month) ___/___/___; ___/___/___; ___/___/___					

BIOSOLIDS ANALYSES AND REPORTING UNITS					
PARAMETER	**UNITS**	**VALUE**	**PARAMETER**	**UNITS**	**VALUE**
total solids	percent	22.7	total arsenic	mg/kg dry weight	2.0
pH	standard units	8.1	total cadmium	mg/kg dry weight	0
total phosphorus	percent dry weight	2.53	total copper	mg/kg dry weight	691
total potassium	percent dry weight	0.163	total lead	mg/kg dry weight	51
volatile solids	percent of total solids	66.5	total mercury	mg/kg dry weight	0.8
organic nitrogen as N	percent dry weight	5.74	total molybdenum	mg/kg dry weight	31
total ammonia as N	percent dry weight	0.57	total nickel	mg/kg dry weight	18
nitrate as N	percent dry weight	0.00	total selenium	mg/kg dry weight	13.0
Laboratory:			total zinc	mg/kg dry weight	778
Date Sampled (if individual sample) 10/01/06					
Dates of Samples if averaged (must be in same calendar month) ___/___/___; ___/___/___; ___/___/___					

BIOSOLIDS ANALYSES AND REPORTING UNITS					
PARAMETER	**UNITS**	**VALUE**	**PARAMETER**	**UNITS**	**VALUE**
total solids	percent	22.2	total arsenic	mg/kg dry weight	3.5
pH	standard units	8.4	total cadmium	mg/kg dry weight	0
total phosphorus	percent dry weight	2.50	total copper	mg/kg dry weight	708
total potassium	percent dry weight	0.181	total lead	mg/kg dry weight	46
volatile solids	percent of total solids	67.6	total mercury	mg/kg dry weight	2.8
organic nitrogen as N	percent dry weight	6.46	total molybdenum	mg/kg dry weight	29
total ammonia as N	percent dry weight	0.70	total nickel	mg/kg dry weight	18
nitrate as N	percent dry weight	0.00	total selenium	mg/kg dry weight	11.4
Laboratory:			total zinc	mg/kg dry weight	791
Date Sampled (if individual sample) 11/01/06					
Dates of Samples if averaged (must be in same calendar month) ___/___/___; ___/___/___; ___/___/___					

BIOSOLIDS ANALYSES AND REPORTING UNITS					
PARAMETER	**UNITS**	**VALUE**	**PARAMETER**	**UNITS**	**VALUE**
total solids	percent	22.3	total arsenic	mg/kg dry weight	4.0
pH	standard units	8.2	total cadmium	mg/kg dry weight	1
total phosphorus	percent dry weight	2.67	total copper	mg/kg dry weight	665
total potassium	percent dry weight	0.168	total lead	mg/kg dry weight	42
volatile solids	percent of total solids	69.5	total mercury	mg/kg dry weight	1.3
organic nitrogen as N	percent dry weight	6.00	total molybdenum	mg/kg dry weight	25
total ammonia as N	percent dry weight	0.67	total nickel	mg/kg dry weight	16
nitrate as N	percent dry weight	0.00	total selenium	mg/kg dry weight	11.4
Laboratory:			total zinc	mg/kg dry weight	731
Date Sampled (if individual sample) 12/01/06					
Dates of Samples if averaged (must be in same calendar month) ___/___/___; ___/___/___; ___/___/___					

CLASS A PATHOGEN DESTRUCTION CRITERIA

CIRLCE ONE: **(Fecal Coliform)** ***OR*** **Salmonella Monitoring Results (dry weight basis):**

Laboratory	Sample Date	*Fecal Coliform Units* = MPN/gram of Total Solids *Salmonella Units* = MPN/4 grams of Total Solids
METRO WW REC. DIST	3 / / 06	200,000
ENV. SERVICES DEPT	4 / / 06	300,000
ANALYTICAL SERVICES	5 / / 06	100,000
6450 YORK ST.	6 / / 06	136,000
DENVER CO 80229	7 / / 06	32,000
(303) 286-3000	8 / / 06	90,000
	11 / / 06	90,000

AND

Identify the Class "A" Alternative Used:

Alternative A-2 Alkaline Treatment ☐ ☒ **N/A**

- ☐ Sludge pH (logs of pH from beginning, middle and end of treatment) ≥12 S.U.
- ☐ Time pH maintained ≥ 12 (minimum 72 hours) _____ Hours
- ☐ Logs of sludge temps from beginning, middle, end and hourly - Minimum 12 hours > 52 °C (125.6 °F)
- ☐ Percent solids in sludge after drying _____ ≥ 50%

☐ **Attach Documentation**

Alternative A-3 Prior Testing ☐ ☒ **N/A**

- ☐ Analytical Results (prior to pathogen reduction and, when appropriate, after treatment):
- ☐ Density of Enteric Viruses (1 plaque forming unit per 4 grams of total solids)
- ☐ Viable Helminth Ova (1 per 4 grams of total solids)
- ☐ Detailed Sampling and Analysis Plan Available
- ☐ Values or range of values for operating parameters to indicate consistent pathogen reduction treatment

☐ **Attach QAPP** ☐ **Attach Analytical Results**

Alternative A-4 No Prior Testing ☐ ☒ **N/A**

- ☐ Analytical Results (prior to pathogen reduction and, when appropriate, after treatment):
- ☐ Density of Enteric Viruses (1 plaque forming unit per 4 grams of total solids)
- ☐ Viable Helminth Ova (1 per 4 grams of total solids)
- ☐ Detailed Sampling and Analysis Plan Available

☐ **Attach QAPP** ☐ **Attach Analytical Results**

CLASS A PATHOGEN DESTRUCTION CRITERIA

Alternative A-5 Process to Further Reduce Pathogens (PFRP) ☒ ☐ **N/A**

Heat Drying ☐ ☒**N/A**

☐ Moisture content of dried sludge _____ < 10%
☐ Logs documenting temp of sludge particles or the wet bulb temp of gas in contact is ≥ 80 °C (176 °F)
(continuous reading or once per shift, minimum 2 readings per day)

☐ **Attach Documentation**

Thermophilic Aerobic Digestion ☐ ☒ **N/A**

☐ Dissolved oxygen concentration in digester
☐ Temperature logs 55 °C – 60 °C (131 °F – 140 °F)
☐ Mean Cell Residence Time (MCRT) 10 days running average _____ days (see equations below)

For complete mixed, constant feed & withdrawal with decanting: $?n = \frac{V\ Cv}{q\ Cq}$

V = reactor volume q = flow rate leaving Cv = concentration of solids in reactor
Cq = concentration of solids in existing sewage sludge ?n = MCRT (running average solids residence time)

For batch withdrawal, daily step feeding and decanting: $?n = \frac{S\ (ds \times ?)}{S\ (ds)}$ or $\frac{S\ (Vi \times Ci \times Ti)}{S\ (Vi \times Ci)}$

ds = an increment of sludge solids that leaves the reactor ? = time period this increment has been in the reactor
Vi = volume of daily batch feed (incremental) to digester Ci = average concentration of solids in daily feed stream

☐ **Attach Documentation**

Composting ☒ ☐ **N/A**

Composting method: ☒ Windrow ☐ Static Aerated Pile ☐ Within –vessel ☐ Other

☐ Temperature logs: ≥ 55 °C (131 °F) for 3 days if within-vessel or static aerated pile method
(continuous reading or one reading per shift, minimum 2 readings per day)
☒ Temperature logs: ≥ 55 °C (131 °F) for 15 days if windrow method
(one reading per shift, minimum 2 readings per day)
☒ Records of pile turnings – minimum of 5 if windrow method

☒ **Attach Documentation**

VECTOR ATTRACTION REDUCTION CRITERIA

Identify the vector attraction reduction method:

- ☒ Volatile Solids Reduction (64.12.C(3)) 50.8 %
- ☐ Bench scale anaerobic digestion (64.12.C(4)) _____%
- ☐ Bench scale aerobic digestion (64.12.C(5)) _____%
- ☐ Specific oxygen uptake rate (64.12.C(6)) _____%
- ☐ Aerobic processing MCRT > 14 days /T > 40EC; xT > 45EC (64.12.C(7)) _____%
- ☐ Alkaline addition (64.12.C(8)) _____%
- ☐ No primary solids, solids content >75% prior to mixing (64.12.C(9)) _____%
- ☐ Primary solids, solids content >90% prior to mixing (64.12.C(10)) _____%

☒ **Attach Documentation**

ATTACHMENTS

☒ FACILITY OPERATING PLAN

Attach a process description and a description of how the biosolids will be marketed to the public. The facility operating plan should also include copies of any labeling, information sheets, written cautions or written instructions for use required per Section 64.14.A(2) or 64.14.B(2) of the Biosolids Regulation.

SUBMITTAL REQUIREMENTS

Mail the Letter of Intent to the address listed on the front page.

Submit a copy of the Letter of Intent to the Local Health Authority. Don't forget to send additional information requested by the Division to the Local Health authority.

Allow 30 days for Division review – the Division will notify the Applicant within 30 days of the completeness of this Letter of Intent.

Allow 30 days from the date of the completeness notification for Division issuance of a Notice of Authorization.

Biosolids may not be distributed without a Notice of Authorization from the Water Quality Control Division

Contact the Division at 303-692-3613 with any questions you may have.

WELD COUNTY, COLORADO

CERTIFICATE OF DESIGNATION

In accordance with the provision of Sections 30-20-101 through 30-20-115, C.R.S., the Board of County Commissioners of Weld County, Colorado, hereby grants a Certificate of Designation for a Solid Waste Disposal Site and Facility (composting facility) in the A (Agricultural) Zone District.

Location of Site: Part of the W1/2 of the SW1/4 of Section 26, Township 3 North, Range 65 West of the 6th P.M., Weld County, Colorado

Name and Address of Responsible Operator:

Stromo, LLC
c/o John Moser and Tim Smith
6600 West 20th Street #11
Greeley, Colorado 80634

This Certificate of Designation may be temporarily suspended or revoked, after reasonable notice and public hearing, for cause as outlined in Section 30-20-112, C.R.S.

Issued this 24th day of March, 2004, at Weld County, Colorado.

Signed: _____
Robert D. Masden, Chair
Board of County Commissioners

2004-0663
PL1450

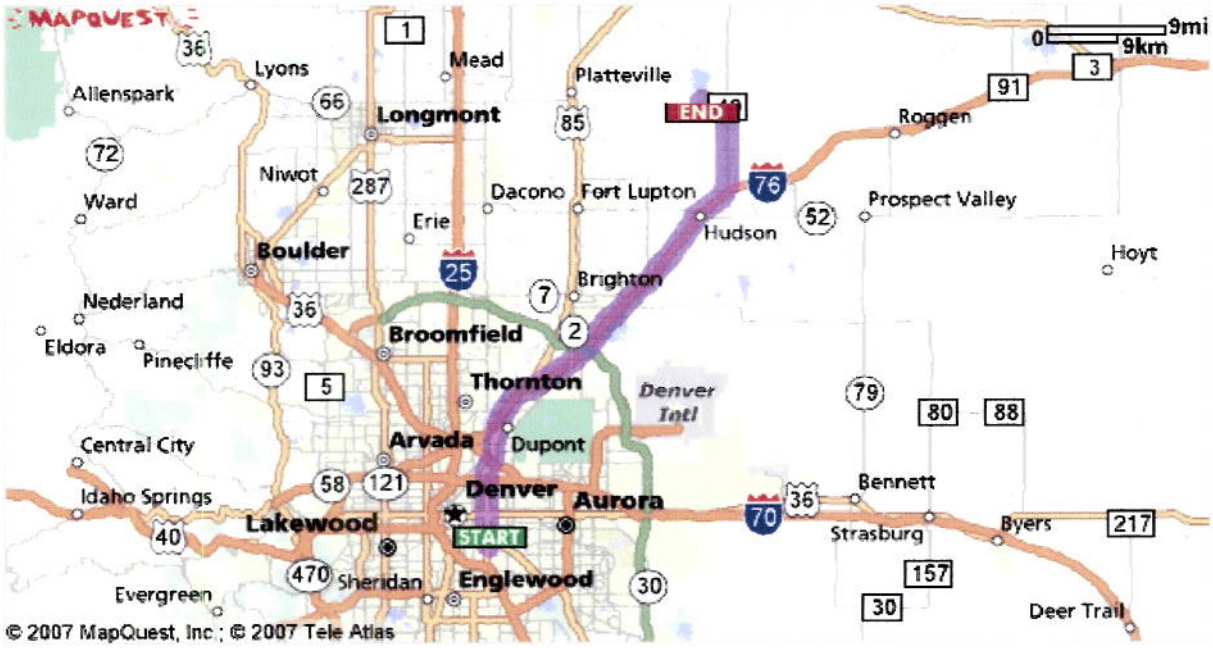
MAPQUEST.

Start: **4300 Cherry Creek South Dr**
Denver, CO 80246-1523, US

End: **21970 County Road 30**
Hudson, CO 80642-9624, US

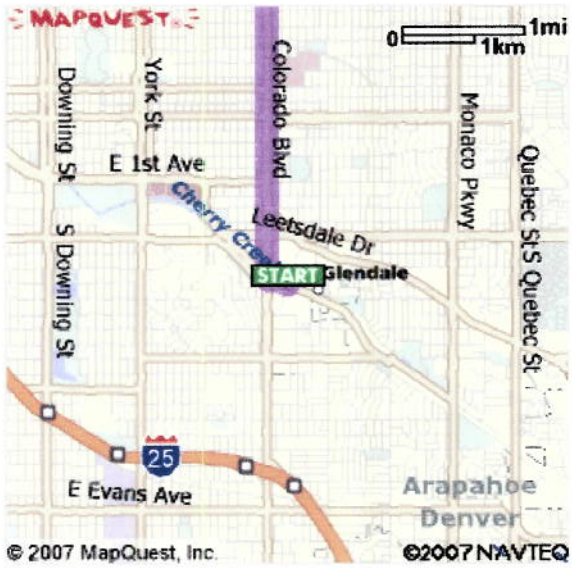
Notes:

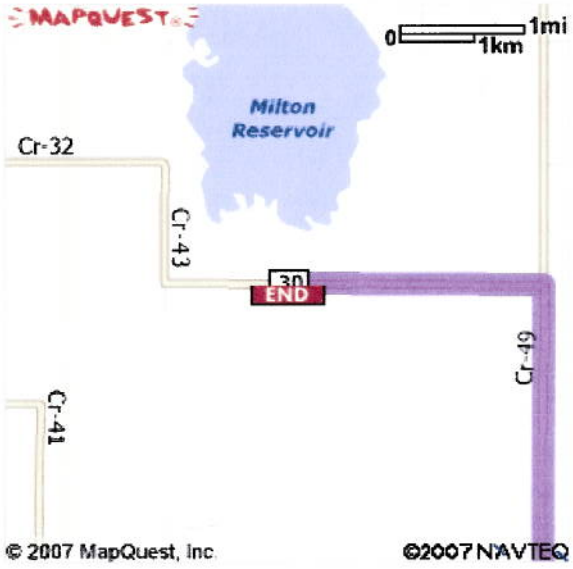
Directions		Distance
Total Est. Time: 51 minutes	**Total Est. Distance:** 44.09 miles	
START	**1:** Start out going NORTHEAST on S ASH ST toward CHERRY CREEK SOUTH DR.	<0.1 miles
	2: Turn LEFT onto CHERRY CREEK SOUTH DR.	0.1 miles
NORTH 2	**3:** Turn RIGHT onto S COLORADO BLVD / CO-2 N. Continue to follow CO-2 N.	7.1 miles
EAST 6	**4:** Stay STRAIGHT to go onto US-6 E / US-85 N.	2.3 miles
EAST 76	**5:** Merge onto I-76 E / US-6 E.	25.0 miles
34 EXIT	**6:** Take EXIT 34 toward KERSEY ROAD.	0.2 miles
	7: Turn LEFT onto CR-49.	7.0 miles
	8: Turn LEFT onto CR-30.	2.0 miles
END	**9:** End at **21970 County Road 30** Hudson, CO 80642-9624, US	
Total Est. Time: 51 minutes	**Total Est. Distance:** 44.09 miles	



Start:
4300 Cherry Creek South Dr
Denver, CO 80246-1523, US

End:
21970 County Road 30
Hudson, CO 80642-9624, US





METRO WASTEWATER RECLAMATION DISTRICT

12-Month Self Monitoring Summary Report

CAKE

Date	TOTAL ALUMINUM mg/Kg	TOTAL ARSENIC mg/Kg	TOTAL CADMIUM mg/Kg	TOTAL CHROMIUM mg/Kg	TOTAL COPPER mg/Kg	TOTAL IRON mg/Kg	TOTAL LEAD mg/Kg	TOTAL MERCURY mg/Kg	TOTAL MOLYBDENUM mg/Kg	TOTAL NICKEL mg/Kg	TOTAL SELENIUM mg/Kg	TOTAL ZINC mg/Kg
01/06	9100	1.8	4	25	609	20400	41	1.0	24	17	11.3	652
02/06	8280	2.0	4	27	622	21900	42	0.9	22	18	10.9	667
03/06	8760	3.2	4	26	620	20900	44	1.0	20	16	8.3	697
04/06	8880	0.8	5	31	658	19800	44	0.8	24	16	8.9	730
05/06	9060	0.0	4	29	744	21400	46	2.7	34	17	17.0	754
06/06	8960	1.0	6	26	697	25700	50	1.2	43	18	11.0	742
07/06	8260	2.0	1	31	698	24300	52	1.2	44	14	7.9	771
08/06	11500	4.0	2	30	694	24300	54	1.4	43	18	11.1	808
09/06	11400	2.0	3	26	676	23200	54	1.5	39	18	15.7	776
10/06	8110	2.0	0	26	691	18300	51	0.8	31	18	13.0	778
11/06	9820	3.5	0	28	708	18800	46	2.8	29	18	11.4	791
12/06	8770	4.0	1	26	665	18000	42	1.3	25	16	11.4	731
Average	9240	2.2	3	28	674	21400	47	1.4	32	17	11.5	741
Limits:												
Grade I:		41	39		1500		300	17		420	100	2800
Grade II:		75	85		4300		840	57	75	420	100	7500

Date	PH SU	CONDUCT. mmho/cm	NITRATE % DW	AMMONIA % DW	ORGANIC-N % DW	TKN % DW	TOTAL PHOSPHORUS % DW	TOTAL POTASSIUM % DW	TOTAL SOLIDS %	VOLATILE SOLIDS %	FECAL COLIFORM mpn/gTS	FEC (GEO.) mpn/gTS	SRT DAYS	AVG TEMP DEG. F	VS RED.,%
01/06	7.9	10.6	0.00	0.59	6.05	6.75	2.58	0.170	21.4	71.2			17	98	52.1
02/06	8.1	16.0	0.00	0.61	6.29	6.91	2.78	0.163	21.8	70.3			18	98	55.3
03/06	8.0	9.5	0.00	0.53	6.56	6.75	2.58	0.160	22.4	71.3	200000	140000	15	98	54.4
04/06	7.9	12.2	0.00	0.50	6.25	6.76	2.57	0.162	22.6	70.8	300000	147000	15	99	54.5
05/06	8.0	13.4	0.00	0.65	6.07	6.64	2.57	0.168	22.5	69.2	100000	58900	16	99	48.2
06/06	8.0	14.0	0.00	0.55	6.00	6.33	2.66	0.156	23.2	68.0	136100	92800	16	99	45.1
07/06	8.0	13.7	0.00	0.71	5.46	6.19	2.65	0.155	23.6	64.5	32000	32000	20	99	49.7
08/06	8.1	15.4	0.00	0.90	4.83	6.08	2.63	0.183	23.8	62.8	90000	54000	18	98	46.6
09/06	8.4	12.8	0.00	0.62	5.56	6.07	2.47	0.220	23.3	64.1			18	98	50.1
10/06	8.1	15.2	0.00	0.57	5.74	6.41	2.53	0.163	22.7	66.5			20	98	51.9
11/06	8.4	12.2	0.00	0.70	6.46	6.93	2.50	0.181	22.2	67.6	90000	3230	20	98	50.7
12/06	8.2	10.1	0.00	0.67	6.00	6.55	2.67	0.168	22.3	69.5					
Average	8.1	12.9	0.00	0.63	5.94	6.53	2.60	0.171	22.6	68.0	100000	75400	18	98	50.8
Limit:											2000000	2000000	15	95	38

Class B Criteria

			Average	Minimum Allowed	Maximum Allowed
Pathogen Destruction:	Solids Retention Time, Day	=	18 Days	15 Days	
	And				
	Temperature, Deg. C(Deg. F)	=	36.9(98)	35 Deg. C (95 Deg. F)	
	Or				
	Fecal Coliform, mpn/gTs	=	75400		2,000,000
Vector Attraction Reduction:	Volatile Solids Reduction	=	50.8	38%	

All values are based on monthly averages.

Report: brr_monitor_summary
Run Date: 15-JAN-2007
Page: 1 of 1